IN THE CLAIMS:

Please amend the claims to read as follows. This is a complete listing of all prior and pending claims and replaces any prior listing in this application.

1. (currently amended) A method of displaying 3D data, comprising:

providing at least one 3D data set defined by a 3D co-ordinate system;

providing ~~subdividing a 3D display region into~~ two or more ~~display~~ subregions **within the co-ordinate system, said regions being bounded in three dimensions**;

assigning a set of display rules to each ~~display~~ subregion; **and**

displaying part , ~~or~~ all **or none** of a 3D data set in each ~~display~~ subregion according to the rules assigned to that ~~display~~ subregion;

wherein said two or more subregions are spatially distinct and wherein their boundaries can be modified by a user.

2. (currently amended) The method of claim 1, ~~where~~ **wherein** the 3D data set displayed in each ~~display~~ subregion is the same, but the display rules are different.

3. (currently amended) The method of claim 1, ~~where~~ **wherein** the 3D data set displayed in each ~~display~~ subregion is unique to that display subregion.

4. (currently amended) The method of claim 3, ~~where~~ **wherein** the 3D data sets displayed in each ~~display~~ subregion are 3D scans of a human or animal body or portion thereof using different sensing modalities.

5. (original) The method of claim 4, where said sensing modalities comprise one or more of CT, MR, PET, SPECT and US.

6. (currently amended) The method of claim 1, ~~where~~ **wherein** the ~~display~~ subregions comprise volumes, 2D surfaces, and points.

7. (currently amended) The method of claim 1, ~~where~~ **wherein** the ~~3D display region is~~ **boundaries of at least one subregion define** a rectangular crop box.

8. (currently amended) The method of claim 7, ~~where the display region is divided into two display subregions whose mutual boundary is a plane~~ **wherein there are two subregions whose boundaries have a common plane.**

9. (currently amended) The method of claim 1, ~~where~~ **wherein** a user can define one or more boundary planes that ~~divide the display region into two or more display subregions~~ **divide a given region within the 3D co-ordinate system into two or more subregions.**

10. (currently amended) The method of claim 9, ~~where~~ **wherein** the boundary planes are parallel to one or more surfaces of ~~the display region~~ **a 3D data set.**

11. (currently amended) The method of claim 1, ~~where~~ **wherein** the boundaries of the ~~display~~ subregions and the set of display rules for each ~~display~~ subregion are defined by a user.

12. (currently amended) The method of claim 11, ~~where~~ **wherein** the boundaries of the ~~display~~ subregions and the set of display rules for each ~~display~~ subregion are defined by system defaults which can be modified by a user.

13. (currently amended) The method of claim 1, ~~where~~ **wherein** ~~the boundaries of the display subregions may be varied by a user during the display~~ when a user modifies the boundaries of a subregion, ~~such that~~ points in a 3D data set now located in a new ~~display~~ subregion are displayed according to the ~~corresponding new~~ display rules **of said new subregion** in substantially real time as the boundaries change.

14. (currently amended) The method of claim 13, ~~where~~ **wherein** said variation of the boundaries of ~~display~~ **said** subregions include**s** one or more of translation, rotation, scaling, shear, linear warping or non-linear warping.

15. (currently amended) The method of claim 1, ~~where~~ **wherein** all ~~points~~ **voxels** in the ~~display region associated with a given display~~ subregion need not be contiguous.

16. (original) The method of claim 11, where a user defines or modifies said boundaries and/or display rules via an interactive object within the display.

17. (original) The method of claim 12, where a user defines or modifies said boundaries and/or display rules via an interactive object within the display.

18. (original) The method of claim 11, where a user defines or modifies said boundaries and/or display rules via a mouse, trackball, joystick or other spatial 2D input peripheral.

19. (original) The method of claim 12, where a user defines or modifies said boundaries and/or display rules via a mouse, trackball, joystick or other spatial 2D input peripheral.

20. (currently amended) The method of claim 1, ~~where~~ **wherein** the 3D data set displayed in each ~~display~~ subregion is stored as one of volume raster data or geometric constructs.

21. (currently amended) A computer program product comprising:

a computer usable medium having computer readable program code means embodied therein for displaying 3D data in a 3D data display system, the computer readable program code means in said computer program product comprising:

computer readable program code means for causing a computer to provide a 3D data set defined by a 3D co-ordinate system;

computer readable program code means for causing a computer to **provide** ~~subdivide a 3D display region into~~ two or more ~~display~~ subregions **within the co-ordinate system, said regions being bounded in three dimensions**;

computer readable program code means for causing a computer to assign a set of display rules to each ~~display~~ subregion; and

computer readable program code means for causing a computer to display all, ~~or~~ part **or none** of ~~a~~ **the** 3D data set in each ~~display~~ subregion according to the rules assigned to that display subregion,

wherein said two or more subregions are spatially distinct and wherein their boundaries can be modified by a user.

22. (currently amended) A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to implement a method of displaying 3D data, said method comprising:

providing a 3D data set defined by a 3D co-ordinate system;

providing ~~subdividing a 3D display region into~~ two or more ~~display~~ subregions **within the co-ordinate system, said regions being bounded in three dimensions**;

assigning a set of display rules to each ~~display~~ subregion; **and**

displaying part, ~~or~~ all **or none** of ~~a~~ **the** 3D data set in each ~~display~~ subregion according to the rules assigned to that ~~display~~ subregion;

wherein said two or more subregions are spatially distinct, and wherein their boundaries can be modified by a user.

23. (currently amended) The method of claim 1, ~~where~~ **wherein** one or more 3D data sets are displayed in each ~~display~~ subregion.

24. (currently amended) The method of claim 1, ~~where~~ **wherein** the same 3D data set is displayed to each ~~display~~ subregion.

25. (currently amended) A method of displaying 3D data in a 3D display system, comprising:

loading one or more 3D data sets into a 3D display system**, each 3D data set being defined by a 3D co-ordinate system and being bound in three-dimensions**;

providing ~~subdividing a 3D display region into~~ two or more ~~display~~ subregions **within the co-ordinate system, said regions being bounded in three dimensions**;

assigning one or more 3D data sets to each ~~display~~ subregion;

assigning a set of display rules to each ~~display~~ subregion;

displaying ~~visible portions of a~~ **part, all or none of at least one of said** 3D data sets in each ~~display~~ subregion according to the rules assigned to that ~~display~~ subregion,

wherein said two or more subregions are spatially distinct and wherein their boundaries can be modified by a user.

26. (currently amended) The method of claim 25, ~~where~~ **wherein** one of the 3D data sets is displayed in each ~~display~~ subregion.

27. (currently amended) The method of claim 25, ~~where~~ **wherein** only one 3D data set is displayed in each ~~display~~ subregion.

28. (currently amended) The method of claim 3, ~~where~~ **wherein** the 3D data sets displayed in each ~~display~~ region are surface renderings of polygonal data sets.

29. (new) The method of claim 25, wherein in at least one subregion at least two 3D data sets are displayed.

30. (new) The method of claim 1, wherein said subregions can be rotated or translated by a user within the 3D co-ordinate system.